

**IN THE CLAIMS**

- 1        1. A method of chemical vapor deposition on a substrate comprising:
- 2            a) placing a substrate on a carrier and in a deposition chamber;
- 3            b) rotating said substrate;
- 4            c) heating said substrate, said heating applied to create a temperature
- 5            gradient above a deposition surface of said substrate wherein the
- 6            temperature increases with increasing distance from said deposition
- 7            surface; and
- 8            d) providing a flow of process gas across a surface of said substrate.

1        2. A method as recited in claim 1 wherein said heating brings said substrate to a  
2            temperature to cause chemical vapor deposition.

1        3. A method as recited in claim 1 wherein said heating is accomplished with a first  
2            heater radiating toward said deposition surface, and with a second heater radiating toward a back  
3            surface of said substrate.

1        4. A method as recited in claim 3 wherein said first heater radiates a different  
2            amount of heat energy than said second heater.

1        5. A method as recited in claim 4 wherein said heating includes a first thermal plate  
2            between said first heater and said substrate, and a second thermal plate between said second  
3            heater and said substrate.

1        6. A method as recited in claim 5 wherein said temperature gradient includes a  
2            temperature difference in the range of 100°C to 200°C between said first plate and said second  
3            plate.

1        7. A method as recited in claim 1 wherein said providing includes supplying said  
2 process gas at a flow rate in the range of 200 sccm to 800 sccm.

1        8. A method as recited in claim 1 wherein said providing includes passing said  
2 process gas over said substrate at a gas velocity in excess of 100 cm/sec.

1        9. A method as recited in claim 1 wherein said providing includes injecting said  
2 process gas at said surface of said wafer with gas injectors so as to concentrate said gas at said  
3 surface.

1        10. A method as recited in claim 9 wherein said gas injectors are temperature  
2 controlled.

1        11. A method as recited in claim 9 wherein said gas injectors are directed at said  
2 deposition surface.

1        12. A method as recited in claim 1 wherein said temperature gradient has a magnitude  
2 in the range of 50 to 100° C per inch.